

Approval of aggregates for spray sealing purposes

Technical directive

Approval register

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1.0	29/11/2019	Philip Stacey	First version

Acronyms	Full form
DIPL	Department of Infrastructure, Planning and Logistics
SSD	Saturated Surface Dry
NATA	National Association of Testing Authorities
VPD	Vehicles per day
AADT	Annual Average Daily Traffic

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1. Introduction

This guide note describes the process to obtain approval of source rock for use as sealing aggregates when undertaking work for the Department of Infrastructure, Planning and Logistics and other Government associated works.

Approval in accordance with this procedures does not guarantee the construction properties of the source rock, this lies with the producer.

All sealing aggregates shall comply with the relevant sections of the DIPL standard specification for roadworks and any project specific requirements.

The approval does not relate to asphalt products.

If an approved source rock's properties change or there is proven unsatisfactory handling or field performance, DIPL Materials Testing Manager may suspend all approvals for that source rock. Re-registration of the source rock maybe considered if the manufacturer can demonstrate, through further testing or independent analysis, that the source rock complies with DIPL specifications.

Approvals of source rock may be subject to special conditions of use.

2. Registration

2.1. General

Applications to register a source rock shall be submitted to the Department at least four weeks prior to the proposed date of commencement of use and shall be accompanied by all the information listed in Clause 2.2.

The approval of the source rock shall remain current for a period of 2 years subject to there being no changes to the source rock properties.

Registration may be extended beyond 2 years with the agreement of the Department and the supplier and further testing may be required at the suppliers cost.

All testing costs for the approval process will be borne by the applicant.

Source rock shall meet the requirements as detailed in ***DIPL Standard Specification for Roadworks: Spray Sealing: Table - Aggregate Source Rock Properties Requirements***

2.2. Information required

The following information shall be submitted for each approval request:

- a) Suppliers business name and contact details
- b) Region and source rock location
- c) GPS coordinates of Source Rock deposit
- d) NATA endorsed test results for all tests listed in Table 1.

2.3 Table 1 – Aggregate source rock properties requirements

Aggregate property	Traffic Count (AADT: Two Lanes)		
	Less Than 300 VPD	300 to 6,000 VPD	More Than 6,000 VPD
AS 1141.23 Los Angeles Abrasion (LAA):			
- Fine Grained Aggregate	30% maximum	25% maximum	20% maximum
- Coarse Grained Aggregate	40% maximum	35% maximum	30% maximum
AS 1141.24 Sulphate Soundness	15% maximum	12% maximum	10% maximum
AS 1141.40, AS 1141.41 Polished Aggregate Friction Value	40 minimum	40 minimum	45 minimum
AS 1141.18 - Crushed particles in coarse aggregate derived from naturally occurring gravel deposit only.	80% minimum		
AS 1141.25.1 - Degradation factor Igneous rocks only	50 Minimum		
AS 1141.26 - Secondary minerals content in igneous rocks	25% Maximum		
AS 1141.29 - Accelerated soundness index by reflux. Igneous rocks shall have a minimum value of 94.	94 Minimum		
AS 1141.50 - Resistance to stripping of cover aggregates from binders. (wet Method SSD) Binder to be S10E with 1% adhesion agent. Precoat to be 100/0/100 with 1% adhesion agent.	10% Maximum (Precoated and SSD)		

3. Table 2 - Registered sealing aggregate suppliers

Region	Supplier	Location	Source rock type	Conditions (if yes contact supplier)	Registration expiry
Darwin	Boral	Mount Bundy	Hornfels	Yes	30 June 2021
Darwin	Boral	Mount Bundy	Porphyritic Syenite	Yes	30 June 2021
Darwin	Halkitis Bros	Mount Bundy	Granite	No	30 June 2021
Darwin	Ostojic	Mount Bundy	Syenogranite	No	30 June 2021
Darwin	AK&S	Mount Bundy	Porphyritic Syenite	Yes	30 June 2021
Katherine	Rowlands	Katherine - north	Limestone	No	30 June 2021
Katherine	Hy-tech	Katherine - south	Limestone	No	30 June 2021
Kununurra	Boral	Weaner Creek	Basalt	No	30 June 2021
Tennant Creek	T/A Remote Concrete NT	Warrego Road	Rhyodacite	No	December 2021
Alice Springs	Hy-tech	North Road	Gneiss, granite	No	30 June 2021
Alice Springs	Fulton Hogan	Maryvale Road	Quartzite	Yes	30 June 2021
Alice Springs	Exact Contracting	Kulgera - Finke Road	Basalt	No	30 June 2021